

PATENT SPECIFICATION

854,090

DRAWINGS ATTACHED.



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COMPLETE SPECIFICATION.

Improvements in Saw Tooth or Garnett Wire for the Rollers or Cylinders of Textile Machines.

I, GUSTAV DAMGAARD, of 73 Bahnstrasse, Mettmann/Rhineland, Germany, a German Citizen, do hereby declare the invention, for which I pray that a patent may be granted to me, and the method by which it is to be performed, to be particularly described in and by the following statement :—

This invention relates to improvements in saw tooth or Garnett wire for clothing the carding rollers or cylinders of textile machines, the wire being of the type in which the saw teeth are wound around the cylinder or roller with the teeth substantially at right angles to the surface of the cylinder or roller.

In the Specification of my prior Patent No. 711,646 there is described a wire of the type referred to herein in which the base is bent at an angle and formed with a recess parallel with the base at the vertex of the bend, the height of which corresponds to the thickness of the base to receive the side of the base of an adjacent turn, and with a bulge on the opposite surface of the base to the recess, the bulge forming the root of the tooth at which the tooth breaks when the wire is over stressed.

A Garnett wire has also been proposed comprising a base and integral toothed portion, wherein each tooth is perforated, slotted, grooved, recessed, or otherwise weakened in such a manner that it is adapted to be broken or torn from its base when overstrained by engagement with a foreign substance during use.

The invention comprises a saw tooth or Garnett wire of the type referred to in which the base of the teeth is formed with a V-shaped projection at one longitudinal side of the teeth and with a corresponding V-shaped recess or groove along the other side

in order that one turn of wire wound on to the cylinder or roller will nest with adjacent turns.

The invention will be described with reference to the accompanying drawings :—

Fig. 1 is a cross section of one arrangement of adjacent turns of wire.

Fig. 2 is a longitudinal elevation of same.

Fig. 3 is a cross section of a second arrangement of adjacent turns of wire.

Fig. 4 is a cross section of a further arrangement.

The wire is formed with teeth 1 integral with a base bent substantially at right angles to the teeth, the base being shaped with a V projection 2 at one side and a V recess or groove 3 at the opposite side substantially vertically below the teeth 1. The angle and depth of the recess or groove 3 is substantially equal to the angle and size of the projection 2 in order that the projection 2 on one wire will nest into the recess or groove 3 of an adjacent wire.

A radiused groove 5 is formed longitudinally of the wire at the junction between the roots of the teeth 1 and the base on the side opposite from the recess or groove 3 to provide an area of reduced cross section to weaken the roots of the teeth in order that the teeth will break off along the groove 5 if overstressed.

In order to space the rows of teeth 1 at greater distances apart the base of the wire may be made longer (Figs. 3 and 4) or a spacing wire 4 of the same shape as the base may be introduced to nest with the bases of adjacent teeth (Fig. 4).

WHAT I CLAIM IS :—

1. Saw tooth or Garnett wire of the type

[Price 3s. 6d.]

- referred to for clothing the carding rollers or cylinders of textile machines in which the base of the teeth is formed with a V-shaped projection at one longitudinal side of the teeth and with a corresponding V-shaped recess or groove along the other side in order that one turn of wire wound on to the cylinder or roller will nest with adjacent turns.
- 5 2. Saw tooth or Garnett wire as in Claim 10 1 in which the second groove is formed longitudinally of the wire at the junction between the roots of the teeth and the base to provide an area of reduced section along which the teeth will break off if overstressed.
3. A carding roller or cylinder wound with saw tooth or Garnett wire as in Claim 1 or 2 in which the rows of teeth are spaced by the insertion of a spacing wire between adjacent bases to nest therewith. 15
4. Saw tooth or Garnett wire for clothing the carding rollers or cylinders of textile machines substantially as described with reference to the accompanying drawings. 20

Dated this 12th day of February, 1957.

J. OWDEN O'BRIEN & SON,
Chartered Patent Agents,
Manchester 2.

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Fig. 1

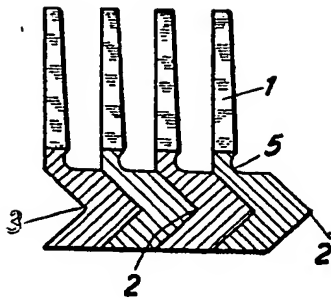


Fig. 2

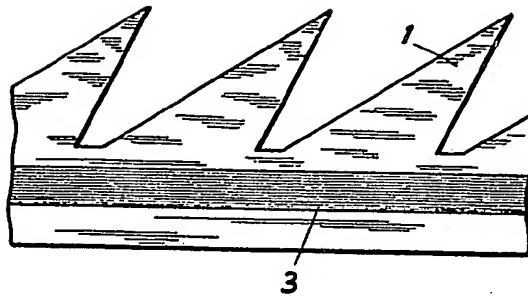


Fig. 3

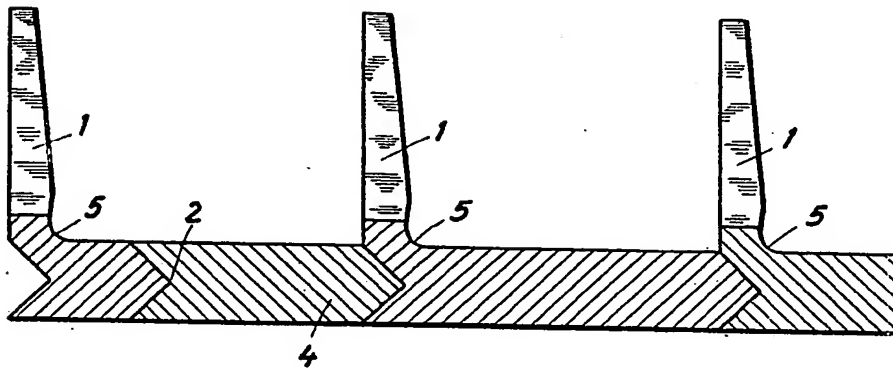


Fig. 4

